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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,454

08/01/2005

Alexander Straub

CS8440/LcA 36,202

7860

34469

7590

06/12/2009

BAYER CROPSCIENCE LP

Patent Department

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EXAMINER

KOSACK, JOSEPH R

ART UNIT

PAPER NUMBER

1626

MAIL DATE

DELIVERY MODE

06/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,454	Applicant(s) STRAUB, ALEXANDER	
	Examiner Joseph R. Kosack	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11 and 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/03/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 11 and 14-21 are pending in the instant application.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 3, 2009 has been entered.

Previous Claim Objections

Claims 11 and 14-20 were previously objected to for containing elected and non-elected subject matter. Applicant has not cancelled the non-elected subject matter, and has traversed on the grounds that the Examiner has incorrectly determined the special technical feature. Due to the obviousness rejection on the record for the claims, this is not found to be persuasive. The requirement remains FINAL and the objection is maintained.

Previous Claim Rejections - 35 USC § 103

Claims 11 and 14-20 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (WO 01/02378 A1) in view of Patani et al. (*Chem. Rev.* 1996, 3147-3176).

The Applicant has traversed the rejection on the grounds that the prior art teaches away from using a pH of 6-10 and that the stability of peroxomonosulfate is

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adversely affected by higher pH, especially above 7. The Applicant has also submitted another declaration from Shlomo Cohen as to the criticality of the pH of the reaction, and has submitted documents to show the instability of peroxomonosulfate in higher pH.

The Examiner respectfully disagrees. The Applicant cited a reference by Betterton. However, Betterton (*Environ. Sci. Technol.*, 1992, 527-532) published another paper in the same journal about two years after the publication cited by the Applicant. Betterton teaches that "at neutral pH, the second order rate constant for oxidation of DMS to DMSO₂ is 10 times higher than that of H₂O₂, and in alkaline solution it could be 3 orders of magnitude higher. The greater reactivity of HSO₅⁻ could therefore make it more attractive than H₂O₂ where rapid reaction is required." See page 531, second column. Therefore, there is conclusive evidence that a person of ordinary skill in the art, with the clear teachings of Watanabe et al. and Betterton, would turn from hydrogen peroxide to a salt of peroxomonosulfuric acid. The rejection is maintained.

Previous Double Patenting Rejections

Claims 11 and 14-20 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,734,198 in view of Patani et al. (*Chem. Rev.* 1996, 3147-3176).

Applicant traverses the rejection on the same grounds as the 35 U.S.C. 103(a) rejection.

This is not found persuasive for the reasons stated above in the discussion of the 35 U.S.C. 103(a) rejection. The rejection is maintained.

Claim Objections

Claims 11 and 14-21 are objected to for containing elected and non-elected subject matter. The elected subject matter have been identified supra.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

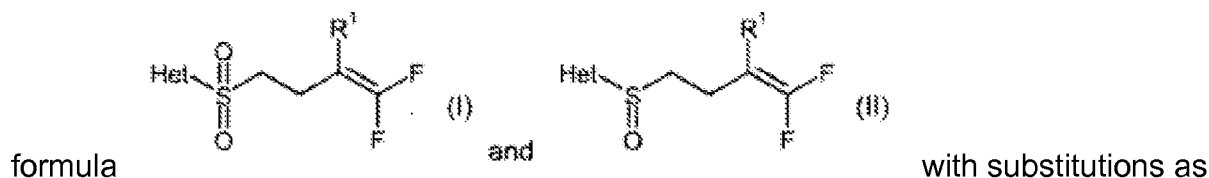
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

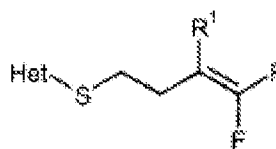
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11 and 14-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (WO 01/02378 A1) in view of Patani et al. (*Chem. Rev.* 1996, 3147-3176).

The instant application is drawn to a method of making compounds of the




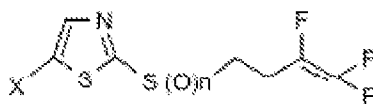


defined by oxidating a compound of the formula: with a salt of peroxomonosulfuric acid.

Determination of the scope and content of the prior art (MPEP §2141.01)

Watanabe et al. teach the oxidation by hydrogen peroxide of a compound of the

formula:  to yield compounds of the formula:



where n is 1 or 2 and m is 3 to 10. See page 1, line 13

through page 2, line 16.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

Watanabe et al. do not teach explicitly the oxidation by hydrogenperoxomonosulfate, i.e. potassium peroxymonosulfate and compounds where R¹ of the instant compounds is hydrogen.

Finding of prima facie obviousness--rational and motivation (MPEP §2142-2413)

Watanabe et al. teaches that potassium peroxomonosulfate can be used as the oxidizing agent. See page 4, lines 7-11. Patani et al. teach the bioisosteric replacement of hydrogen for fluorine. See pages 3149-3150.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to follow the synthetic scheme of Watanabe et al.

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and substitute fluorine for hydrogen in the alkene group according to Patani et al. and use potassiumperoxomonosulfate as suggested by Watanabe et al. to make the claimed invention with a reasonable expectation of success. The motivation to do so is provided by Watanabe et al. Watanabe et al. teach the use of the synthesized compounds as nematicides. See the abstract.

Thus, the claimed invention as a whole was *prima facie* obviousness over the combined teachings of the prior art.

Double Patenting

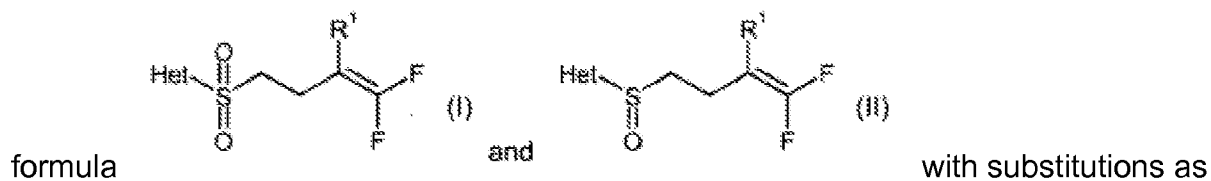
The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

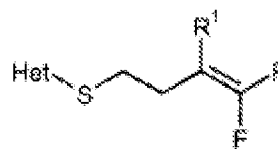
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 11 and 14-21 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,734,198 in view of Patani et al. (*Chem. Rev.* 1996, 3147-3176).

The instant application is drawn to a method of making compounds of the



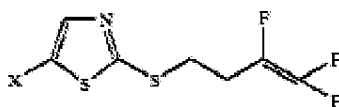
defined by oxidating a compound of the formula:



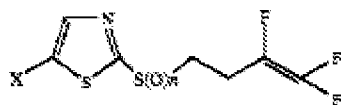
with a salt of

peroxomonosulfuric acid.

'198 teaches the oxidation of



to yield



where n is 1 or 2 and X is a halogen.

'198 does not teach the process where R¹ of the instant compounds would be hydrogen.

Patani et al. teach the bioisosteric replacement of hydrogen for fluorine. See pages 3149-3150.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to follow the synthetic scheme of '198 and substitute fluorine for hydrogen in the alkene group according to Patani et al. to make the claimed invention with a reasonable expectation of success. The motivation to do so is provided by '198. '198 teach the use of the synthesized compounds as nematocides. See the abstract.

Conclusion

Claims 11 and 14-21 are rejected. Claims 11 and 14-21 are objected to.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R. Kosack whose telephone number is (571)272-5575. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph R Kosack/
Examiner, Art Unit 1626

/REI-TSANG SHIAO /
Primary Examiner, Art Unit 1626

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